

As the IEEE Subcommittee pointed out in their comments, the ARRL has misstated several points regarding the PLC techniques used in utility transmission line protection systems. As discussed in the Subcommittee comments, neither the On/Off nor the frequency shift systems would have the immunity from misoperation caused by interference that is cited by the ARRL. In several areas, it is stated or implied that there is a low probability of interference; it must be understood that the interconnected utility transmission systems are being operated with closer margins for error than ever before. With this in mind, there can be no tolerance for “relatively low probability” events- the interconnected transmission systems must be designed and operated with the highest regard for reliability. One additional point: Many of the approximately 10,000 PLC terminals operating in the two bands noted are associated with bulk power transmission line protection, so it is expected that there are numerous instances where key interconnection facilities in the 135.7-137.8 kHz band could be impacted.

The ARRL statement that it could not find any record of false trips of PLC equipment is also effectively countered by the UTC position in Paragraph 19. Another ARRL assertion should also be challenged: In their comments, the ARRL stated that 1) an increasing number of today's PLC systems use synthesized transmitters, allowing easy changes, and 2) that forward error correction can be used with digital transmission of data. In fact, these comments would represent a very small percentage of the operating PLC systems today.